

State of Arizona

Summary
Of
Agency
Information
Technology
Plans

Jane Dee Hull
Governor of Arizona

FOR
FISCAL YEARS 2002-2004

Government Information Technology Agency

TABLE OF CONTENTS

<i>Introduction</i>	7
<i>Major Themes</i>	8
<i>Analysis and Summarization</i>	10
Issues	11
Trends	12
Goals	13
Objectives	17
Findings	22
Recommendations	23
 Appendix A—Agency IT Plans	 A-1
Appendix B—Planning Process	B-1
Appendix C—Statewide IT Expenditures	C-1
Appendix D—Active Project List By Total Costs	D-1
Appendix E—Agency Categories	E-1
Appendix F—Agency Size	F-1

INTRODUCTION

In the era of online access to government information and services, there are at least two forces that are driving change in government information technology (IT). First, technology organizations are directly servicing citizens. This is most often seen when agencies make services available on web sites and telephone systems. These activities make IT a valuable and strategic tool for meeting agency goals. Directly serving citizens changes the notion of customers for IT organizations. In the past, agency personnel and business organizations were the customers. Now, the definition of customer expands to include citizens. Likewise, the private sector is experiencing this change. CIO's in some large corporations are being held responsible for the organization's bottom-line.

The second thing that is changing government IT is that agency directors, Governors, legislatures, and other public officials are more often viewing technology as a strategic resource. They want to know how technology is contributing to the goals of the organization. IT programs are being held accountable for their part in the organizations' successes and failures. Also, the recent demise of many of the dot.coms is heightening the awareness that great technology by itself does not make a successful organization.

In response to these and other pressures, agencies have been encouraged to write plans that show how IT will help the agency meet business goals. Specifically, GITA encouraged agencies to develop strategic IT plans as opposed to tactical plans. Last year, agency plans improved over previous years. The biggest change was that the plans, in general, were customer focused. This year, plans are even more business-oriented, yet customer service is only one of several business themes. Agency effectiveness, cost efficiencies, communications, and other strategic topics emerged.

Not only are agencies writing IT plans in business terms, they are also providing insight into their future IT activities. The two areas with the greatest emphasis are 1) improving the IT infrastructure and 2) providing more information and services online.

The purpose of this document is to report on the agencies' IT plans, provide analysis and make recommendations on how the IT planning process may be improved. Through successful IT planning, the State will reap the benefits of agency IT programs that play a more strategic role in agencies fulfilling their missions.

MAJOR THEMES

The most important development in IT plans this year was the advancement of IT plans as being strategic. After two years of GITA encouraging agencies to write strategic IT plans, as opposed to tactical plans, new trends developed. Almost 72% of agencies had at least one objective that was stated in business terms. Fifty percent of agencies had at least one goal that was expressed in business terms.

Last year, when agencies' plans were focused on business issues, they were predominantly customer service focused. However, this year the business issues seemed to be more rounded. Examples:

Goals

- 26% of agencies listed goals about agency effectiveness.
- 26% had goals about cost efficiencies.
- 23 % of agencies had goals about customer service.

Objectives

- 38% of agencies had objectives to improve agency communications.
- 37% had objectives to enhance cost efficiencies.
- 29% of agencies had objectives to increase customer service.

Agencies' IT infrastructures were another prominent theme in FY 2002. In FY 2001, they were included as a subheading in the Major Theme but under a more general category of improving internal capacities. This year, agency plans were more focused and the infrastructure came out on top. In fact, it seemed to be a primary focus in all facets of the IT plan, including:

- 52% of agencies reported improvements in some areas of their agency IT infrastructure.
- 48% of all agencies had concerns with at least one area within their infrastructure.
- 57% had goals to improve the infrastructure.
- 46% of agencies had objectives for technology refresh.
- 45% had objectives to develop or implement software.
- 28% were enhancing either their telecommunication or data networks.

After agency infrastructure, Internet delivery of information and services was the third most important theme. This was number one last year. Many agencies were still focused on developing this alternative way of customer service delivery. Examples:

- 56% of agencies saw the Internet as a positive trend in delivering information and services to State customers.
- 18% of agencies considered citizen's embracing new technologies as a positive influence for agencies in providing new service delivery methods.
- 48% had goals to develop or improve online access to information and services.
- 62% had objectives for Web Page or Internet Application Development.

ANALYSIS AND SUMMARIZATION

The data in the following pages were analyzed in three ways: aggregate, size and type. First, some data was looked at in the aggregate. There were a total of 82 agencies analyzed during this exercise.

Second, plans were analyzed by agency size. We placed each agency into one of three categories, depending on total Full-Time Equivalent (FTE) count. The following chart shows the three sizes and the number of agencies in each category:

Agency Size	Number of Agencies
Large 246 FTEs and larger	18
Medium 36-245 FTEs	20
Small 35 FTEs and smaller	44
Total	82

Third, plans were analyzed by agency type. The Governor's Office for Strategic Planning and Budgeting places agencies into seven categories, depending on the function of the agency. GITA used that same convention for this analysis. The following chart shows the seven agency types and the number of agencies in each category:

Agency Type	Number of Agencies
General Government	12
Health and Welfare	7
Inspection and Regulation	42
Education	7
Protection and Safety	7
Transportation	1
Natural Resources	6
TOTAL	82

ISSUES

As was done last year, agencies were asked to list the issues that had a negative impact on their IT program's ability to support the business of the agency. Again, GITA analyzed the issues each agency identified and put them into categories. Not surprising, the same top issues emerged. What was different was that some changed their order and also received a different percentage of responses. The top issue categories and response percentages are listed in the following chart:

Issue Categories	FY2001	FY2002
Lack of funding	65%	57%
IT Infrastructure Concerns	27	48
Lack of IT staff	47	37
Inadequate amount of IT training for employees	29	30

Inadequate funding was most often identified as having a negative impact on being able to support the agency's mission both fiscal years. However, there appeared to be somewhat an improvement over last year.

In FY 2002, 48% of agencies identified some of their information technology as being outdated and unable to adequately support the agency's business. This was a very large increase over the percentage of agencies last year.

Lack of qualified staff was the second issue last year and the third this year. This category was often expressed in conjunction with problems in retention and recruiting staff. Some agencies identified that positions with lower than market wages were a major contributor to this problem. Additionally, several medium and small agencies mentioned they did not have positions for information technology. Because this category experienced a 10-percentage point drop and a move to third place seems to indicate that agencies aren't as concerned about this problem as in the past. The dot.com implosion, the recession, and large local layoffs may have helped increase the quality and quantity of the local IT labor pool and these numbers may reflect it.

Lack of staff receiving adequate IT training was identified by 30% of agencies, very similar to the responses last year. For some agencies, this meant training their IT professionals on how to implement and support newer technologies. For others, it meant training their business staff in using the information technology that has already been implemented.

TRENDS

Also during the planning process, agencies were asked to list the Trends that had a positive impact on their IT program's ability to support the business of the agency. As was the case last year, GITA analyzed and categorized the Trends. The top Trend categories are listed in the following chart:

Trend Categories	FY 2001	FY 2002
Using Internet to provide information and services	48%	56%
Infrastructure improvement	N/A	52
Citizens embracing new technologies	N/A	18
Remote connectivity to agency network	16	17
Sharing data with other agencies	19	15

The trend most often mentioned both years was "Using the Internet to provide information and services." However, agencies reported an even greater emphasis this year.

The next trend mentioned in FY 2002, "Infrastructure Improvement," was very interesting considering a large percentage of agencies also saw their infrastructure as a hindrance to their agency. It appeared that half of the agencies that said updating their technology in some areas was a positive trend still felt they were falling further behind in others areas. Overall, 48% of agencies reported concerns with their IT infrastructure in the Issues discussion above.

Infrastructure improvement was mentioned so few times in FY 2001 that the number of responses weren't even reported. The FY 2002 number represents a very significant shift. Technology refresh, particularly replacing old PCs, was the most often mentioned improvement.

Improvements in the infrastructure may be explained by agencies meeting goals and objectives from last year. In FY 2001, 48% of agencies reported objectives of refreshing various parts of the IT infrastructure. Additionally, 32% planned on enhancing their network infrastructure. Possibly, agencies have improved in areas where they planned.

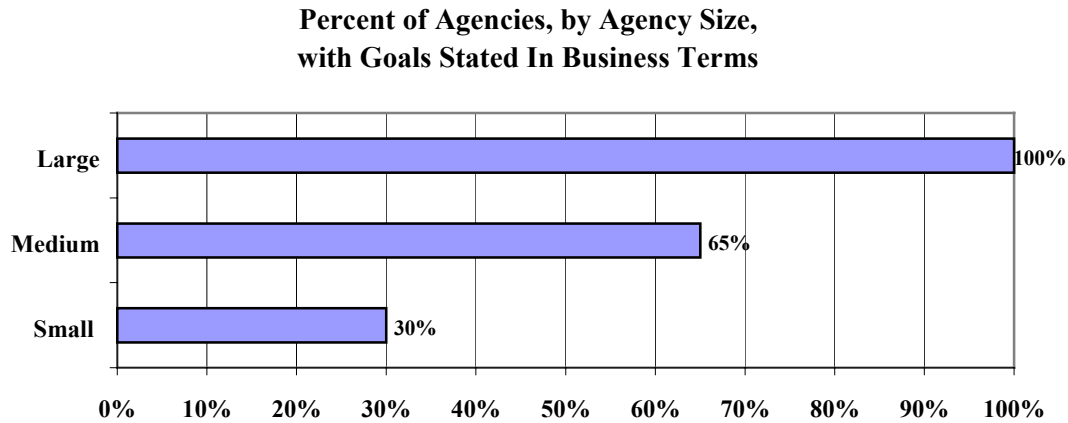
Another new Trend category that emerged this year was that 18% of agencies saw citizens embracing new technologies as something positive to the agency. Agencies planned to leverage this adaptation to increase customer delivery methods using IT.

Remote connectivity to agency network was the third most popular trend mentioned last fiscal year. While the overall percentage didn't change much, its rank order fell to fourth place. Like last year, this issue was most often related to agencies' telecommuting programs. However, some agencies were providing employee access to agency data and computing services, such as E-mail, from the field.

Sharing Data with other agencies fell to the fifth place in rank order.

GOALS

As stated earlier, GITA has encouraged agencies to develop strategic IT plans as opposed to tactical plans. Last year, we noticed agency IT plans were increasingly customer focused. FY 2002 brought greater improvements; particularly agencies were getting better at articulating the business reason for doing IT. For example, 50% of the agencies had at least one IT goal that was expressed in business terms, which tend to make the goals more strategic in nature. Also, the larger the agency, the more likely they had at least one goal stated in business terms, as shown in the following chart:



Because small agencies didn't have large IT needs to help them achieve business goals, their plans tended to focus on operational matters. Therefore, it was no surprise that only 30% of small agencies had at least one goal stated in business terms. Likewise, IT was seen as an important strategic resource to large agencies with 100% of them having at least one goal written in business terms. This is generalized across the board illustrated by a graduated increase in scale between small, medium and large agencies.

As in the past, agencies set goals for the next three years. GITA analyzed all goals from all agencies and came up with several different goal categories. It became apparent that many goals were stated in business terms. The chart below shows the three most often used goal categories that were stated in business terms in fiscal year 2002 agency IT plans:

Goal Categories	FY2002
Improve Agency Effectiveness	26%
Enhance Cost Efficiencies	26
Increase Customer Services	23

Aside for those listed in the above chart, some of the other goals stated in business terms included improve internal communications, increase data security, improve decision making, etc.

Some of the goals referenced above also included some of the subjects in the following chart. In those cases, the goals were placed into more than one category. For example, one goal might have been, “Increase customer service by improving our customer tracking application.” In that case, the goal would have been included in both the “Increase Customer Service” strategic category above and in the “Improve Internal Processes/Applications/Capabilities” category below.

The following chart shows the top goal categories and percentage of agencies with at least one goal in those categories:

Goal Categories	FY2001	FY2002
Enhance IT Infrastructure	31%	57%
Improve Internal Processes/Applications/Capabilities	68	49
Develop or Improve Online Access to Information and Services	38	48
Enhance Staff Capabilities (Training, Retention and Recruiting)	25	21

The most popular goal categories were the same as last year. However, some increased or decreased in prominence. One of the most significant differences were that goals to “Enhance IT Infrastructure” moved from third to first in the rankings and went from not quite a third of agencies having this goal type to more than half. These goals were often expressed as technology refresh or implementing new hardware and software. Many agencies also mentioned network enhancements.

The goal category to “Improve Internal Processes/Applications/Capabilities” went from first to second place and fell to 49%, down from 68% last year.

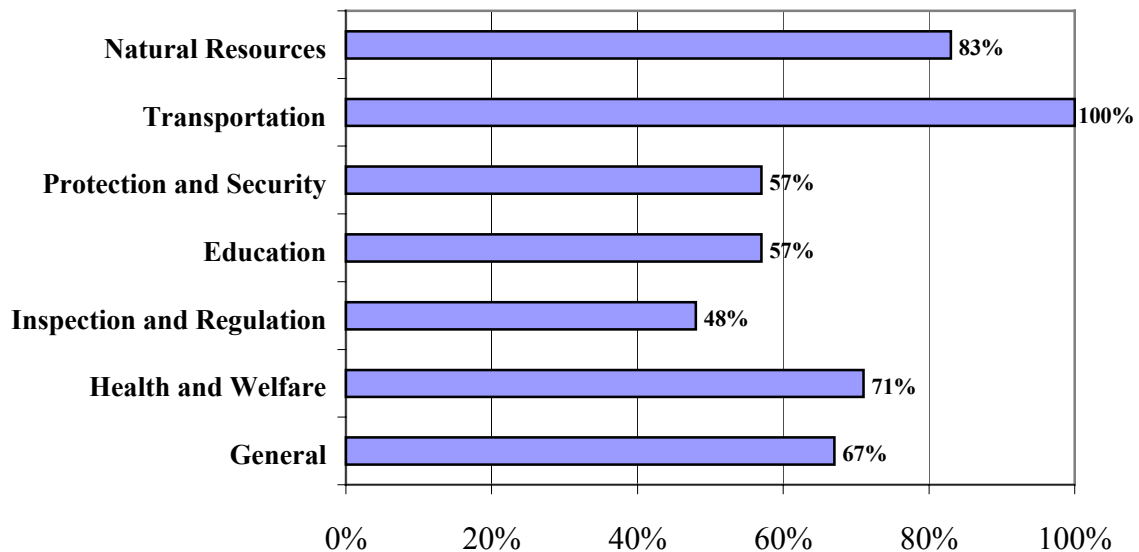
Goals to “Develop or Improve Online Access to Information and Services” increased in popularity but ended up in third place, down from second place last year.

Finally, goals to “Enhance Staff Capabilities,” which was mainly goals on training, retention or recruitment, saw a small decrease.

Looking at the data broken out by agency types shows a different dimension.

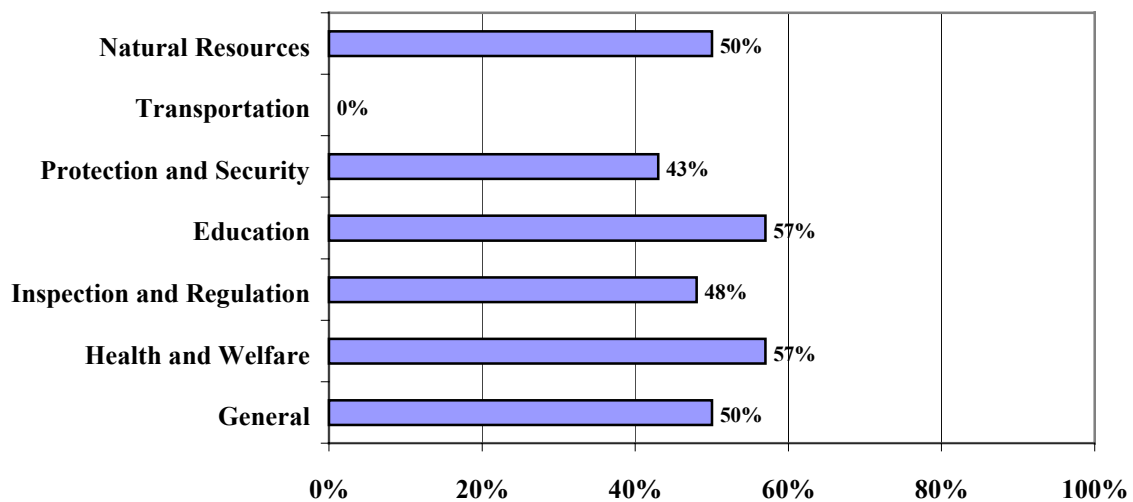
Note: In the following charts, the Transportation category represents only one agency. Therefore, is not usually mentioned in the analysis but is included in the charts for information purposes.

Percent of Agencies with Goals to Enhance IT Infrastructure



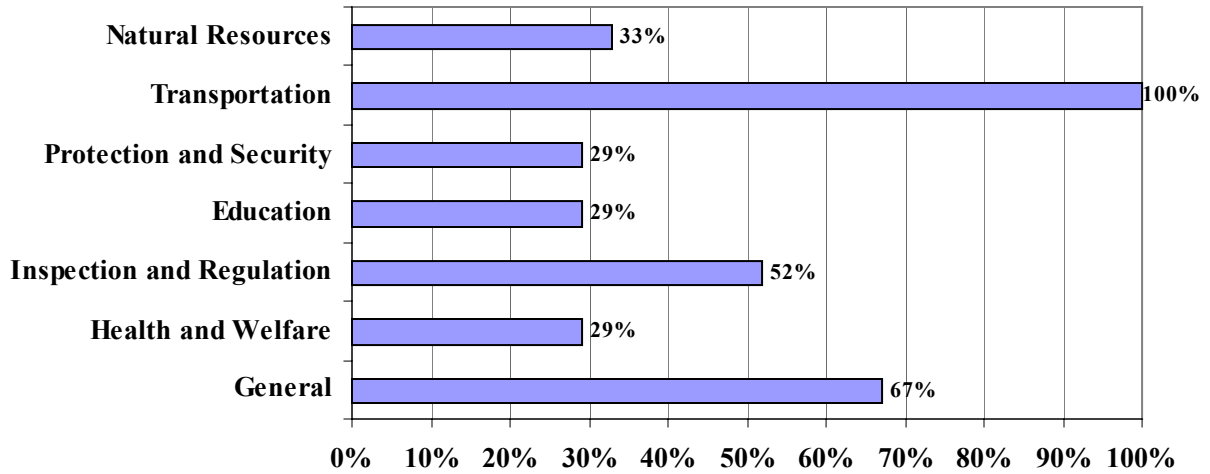
All agency types were well represented in the “Enhance IT Infrastructure” category. The Natural Resources agencies had 83% with at least one goal in this category. Only the Inspection and Regulation agencies had less than 50% representation.

Percent of Agencies with Goals to Improve Internal Processes/Applications/Capabilities



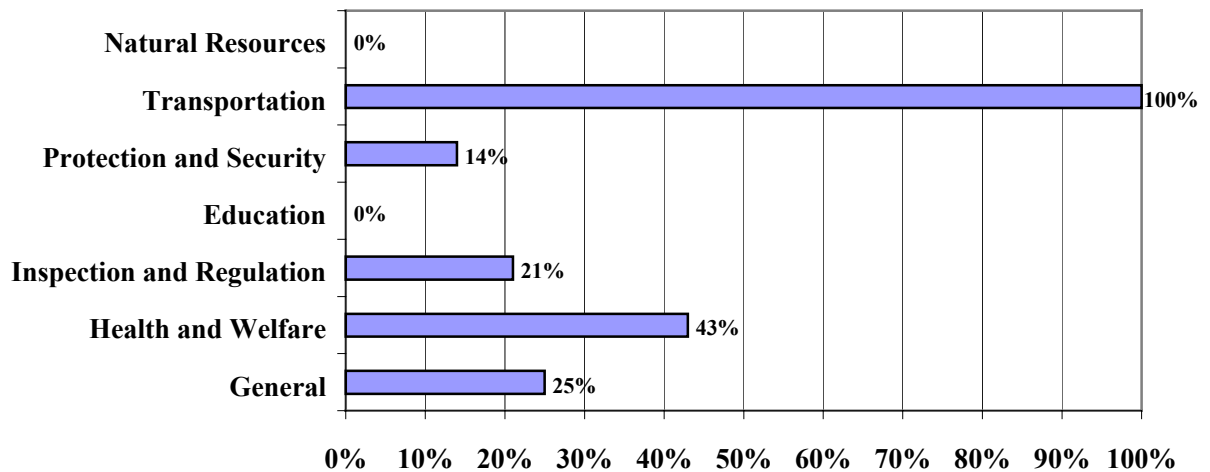
Agency types with goals in the “Improve Internal Processes/Applications/Capabilities” category were pretty closely grouped around the 50% mark.

**Percent of Agencies with Goals to
Develop or Improve Online Access to Information and Services**



A little surprising was that the two agency types that were thought to be the most bureaucratic, Inspection/Regulation and General Government, had the most agencies with at least one goal in the “Develop or Improve Online Access to Information and Services” category. The rest of the agencies were grouped around the 30% mark. This may be explained by agencies already having a strong web presence and focusing their attention elsewhere.

**Percent of Agencies with Goals to Enhance Staff Capabilities
(Training, Retention and Recruiting)**

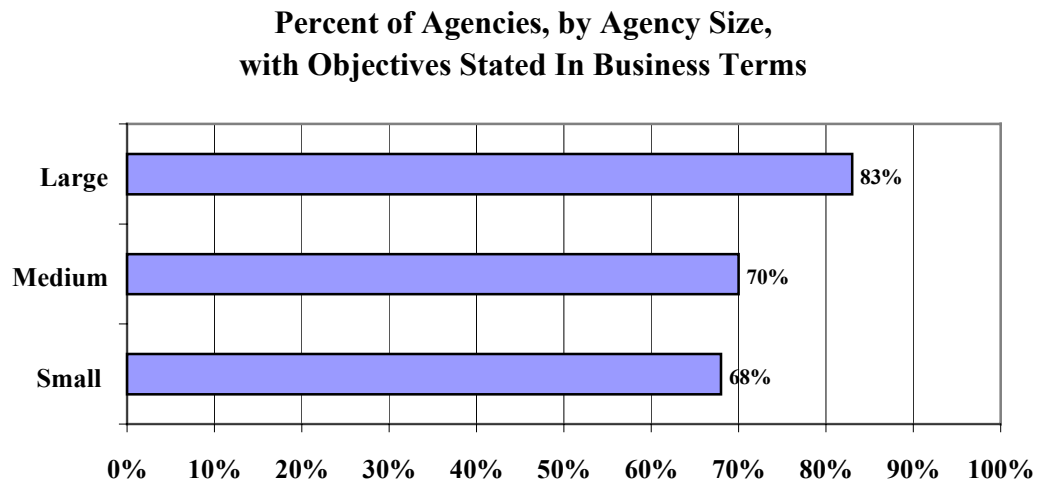


Health and Welfare agencies were the most likely to have at least one Goal in the “Enhance Staff Capabilities” category. Both the Natural Resources and Education had no agencies with such goals.

OBJECTIVES

After agencies set goals, they developed objectives to support the goals. Objectives are elements to be accomplished in order to achieve the goals. GITA categorized objectives into major types.

Like agency IT goals, the objectives were also more business-oriented. Almost 72% of agencies had at least one objective that was stated in business or strategic terms. Like the goals, the trend seemed to be that the larger the agency, the more likely they would have at least one objective stated in business terms. Below is a chart showing the percentages of agencies with objectives stated in business terms, by agency size:



The chart below provides the most common objectives that were stated in business terms, and the percentage of agencies with at least one objective in those categories.

Objective Category	FY 2002
Improve Communication	38%
Enhance Cost Efficiencies	37
Increase Customer Service	29
Improve Agency Effectiveness	29

Some of the objectives referenced above also included some of the subjects in the following chart. In those cases, the objective was placed into more than one category. For example, one objective might have been, “Improve agency communication by modifying the Intranet so that 100% of our employees will receive the latest updates to our operating procedures online.” In that case, the objective would have been included in both the “Improve communications” business category above and in the “Web pages/Internet Application Development” category below.

Objective Category	FY 2001	FY 2002
Web Page/Internet Application Development	64%	62%
Technology Refresh	48	46
Software Development/Implementation	N/A	45
Train Staff	36	35
Enhance Network Infrastructure (WAN/LAN, Voice)	32	28

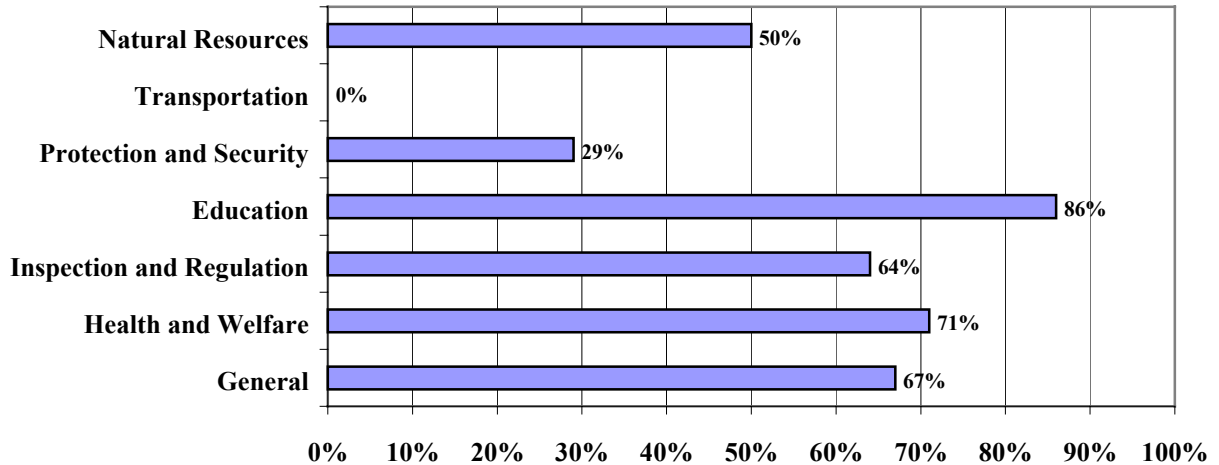
The rank order of the most popular objective categories didn’t change order with the exception of a newly popular category “Software Development/Implementation” that is now in the third spot. Last year, there were not enough agencies with these objectives to be included in the report.

Objective Category	Small	Medium	Large
Web Page/Internet Application Development	59%	70%	61%
Technology Refresh	50	30	56
Software Development/Implementation	34	45	72
Train Staff	25	35	61
Enhance Network Infrastructure (WAN/LAN, Voice)	7	50	56

There seemed to be a direct relationship between size of agency and many of the objective categories. For example, the larger the agency, the more likely they would be doing software development. The same is true for “Training Staff” and “Enhance Network Infrastructure.”

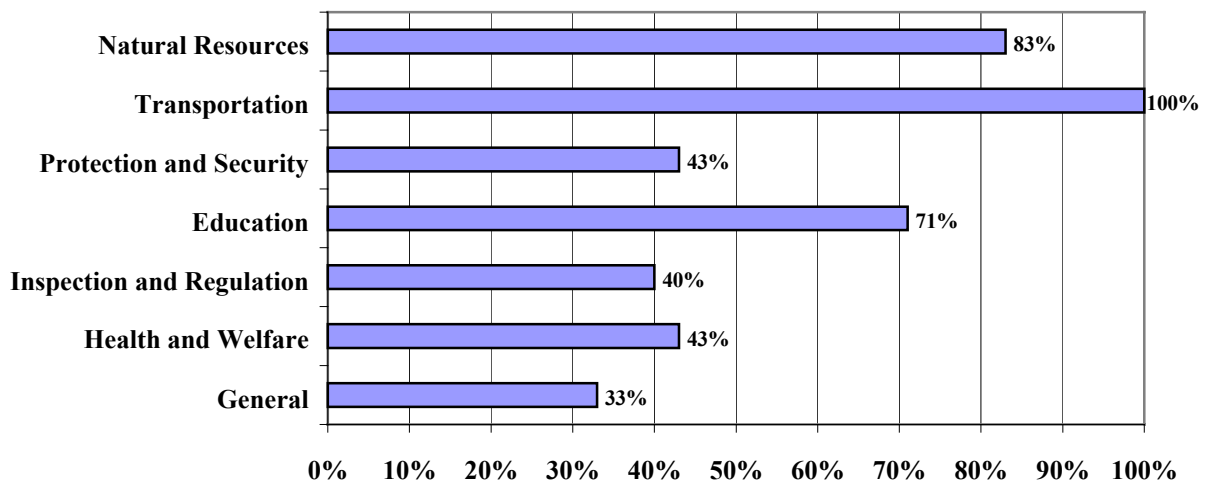
Note: In the following charts, the Transportation category represents only one agency. Therefore, is not usually mentioned in the analysis but is included in the charts for information purposes.

**Percent of Agencies with Objectives to
Develop Web Page/Internet Applications**



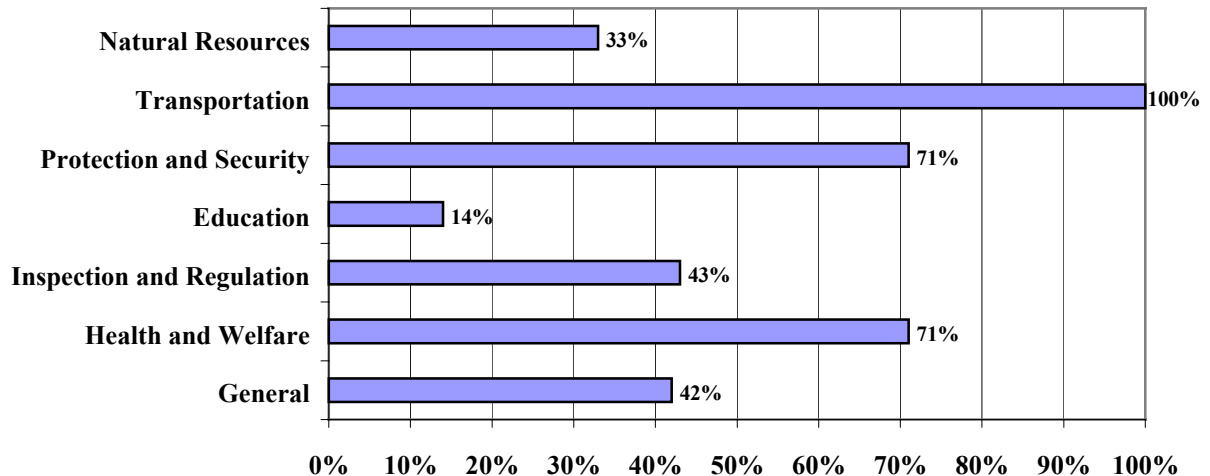
In the above chart, objectives to “Develop Web Pages/Internet Applications” were found most among 86% of the education agencies, while it was least among Protection and Security agencies. Health and Welfare reported only 44% last year and 71% this year. Protection and Safety agencies didn’t focus their objectives on this subject as much as last year, when 71% had at least one objective in this category compared to 29% this year.

Percent of Agencies with Objectives for Technology Refresh



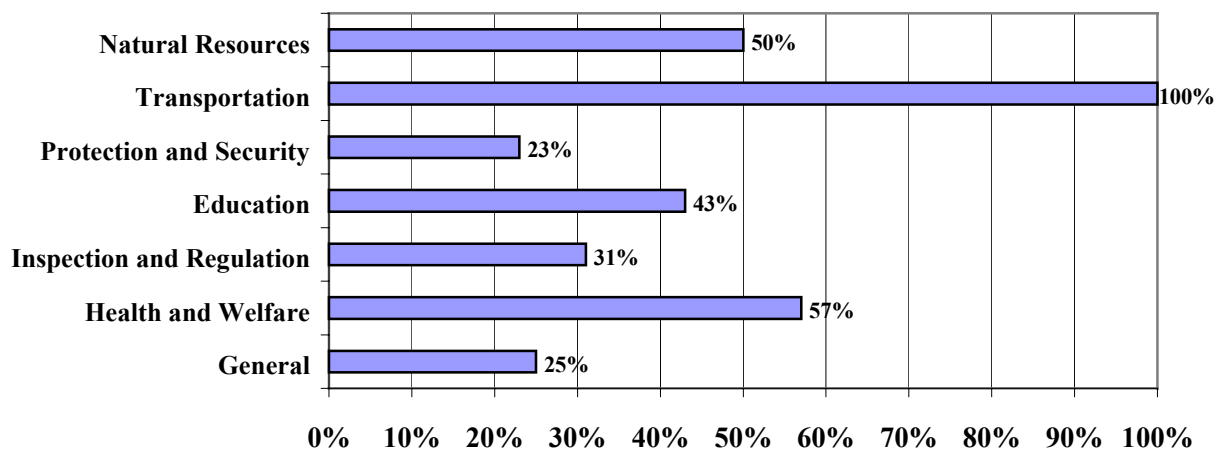
Aside for the Transportation category, Education agencies were most concerned with keeping their technology current, with 71% of them reporting this in their objectives. On the other hand, General Government agencies were less interested with 33% of them reporting plans for technology refresh.

Percent of Agencies with Objectives for Software Development/Implementation

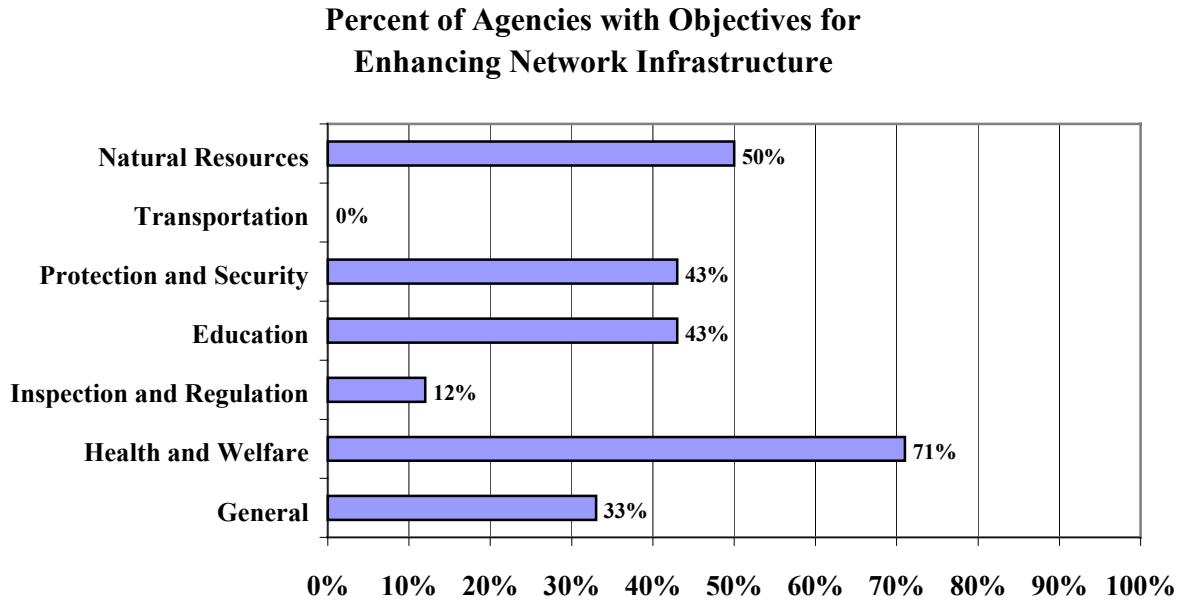


As mentioned earlier, the objective category of “Software Development or Implementation” was new this fiscal year. Seventy-one percent of agencies in both Protection/Security and Health/Welfare agencies reported having at least one objective in this category. Education agencies had the least at 14%.

Percent of Agencies with Objectives for Training Staff



“Training staff” was most popular among Health and Welfare agencies, which ranked last place last year at 11%. Education and Protection and Security agencies, which were tied for first last year, each decreased the number of agencies having objectives in this category. Again, the Transportation category reflects only one agency.



The objective category “Enhancing Network Infrastructure” was lead by Health and Welfare with 71%, which took the lead from Protection and Safety agencies that had the lead last year with 71%. Like last year, Inspection and Regulation agencies had the least agencies that reported these objectives; they reported 12% this year. Because Inspection and Regulation agencies tended to be small agencies without networks or having small LANs, this was no surprise.

FINDINGS

After carefully reviewing each agency's IT Plans, GITA produced the following list of critical issues. These are consistent with last year's findings. The findings highlight items in the annual IT planning process or data provide in the plans that need to be addressed or that are positive. The findings are:

1. The best IT plans came from agencies where business planning and IT planning are closely coordinated or integrated.
2. Agencies' IT plans have improved because they are more business focused. Many of the goals and objectives are strategic and written in business terms.
3. While many IT goals and objectives continue to be customer-focused, agencies are also stating them in other business related terms. Subjects like improve communication, agency effectiveness, cost efficiencies, and security are becoming increasingly prevalent as business outcomes in agency plans.
4. Performance measures are improving significantly over last year's. Many more agencies are providing specific metrics that are time-bound.
5. While improvements are noted above, many agencies' IT plans are written project-based, rather than business-results based. Agencies need to be measuring business outcomes, yet many agencies measure IT implementation.
6. Agencies' IT infrastructure are a major focus in this year's IT plans. Technology refresh, development or implementation of new software, and network enhancements are prevalent. However, these plans were largely developed prior to the revenue shortfalls and budget problems the State is now encountering.
7. Providing online services to customers and employees is still a major focus in many of the agencies.
8. Multi-agency integration of services is still rarely mentioned in IT plans. As stated last year, these kinds of projects have the largest potential in providing enhanced services to citizens and reducing the costs of providing those services.
9. Although there is an improvement over last year, many agencies do not mention their participation in major statewide IT initiatives.

RECOMMENDATIONS

The following recommendations were produced after GITA carefully reviewed each agency's IT Plan, analyzed them from a statewide perspective, and then developed the list of findings. These Recommendations are meant to guide future IT planning efforts.

1. **Agencies should consider integrating IT planning with the agencies' business planning processes.** As mentioned last year, those agencies that do a good job showing how their IT plans support the business of the agency tend to have a tighter integration of their IT and business planning process. At a minimum, business planners should be included in the agency IT planning process and IT planners should be invited to the agency business planning process.
2. **Agency IT planning personnel should receive strategic plan training.** Although GITA revamped its IT training class, IT planners should take advantage of other training as well. For example, the Governor's Office of Excellence in Government offers several good strategic planning classes.
3. **GITA should continue to coordinate with OSPB to ensure that IT planning supports the statewide business planning efforts.** Throughout the year GITA has worked with OSPB on this issue. Currently, OSPB is working on revamping the State's current planning and budgeting processes and has invited GITA to participate.
4. **Agencies are encouraged to look for ways to share data and integrate services to better serve the public.** GITA is developing an enterprise-wide IT architecture to better facilitate these activities. Additionally, the State's Web Portal is established and the portal committee is looking for these opportunities.
5. **GITA should get feedback from its customer agencies to find other ways to improve the planning process.** GITA plans to survey its customers about its services in general. It is recommended that GITA include specific questions about the IT planning process, PARIS, and IT plan training.